Prototypical Cross-domain Self-supervised Learning for Few-shot Unsupervised Domain Adaptation

Xiangyu Yue1*, Zhangwei Zheng2*, Shanghang Zhang1, Yang Gao3, Trevor Darrell1, Kurt Keutzer1, Alberto Sangiovanni-Vincentelli1
1University of California, Berkeley 2Nanjing University 3Tsinghua University

Motivation

Previous: Unsupervised Domain Adaptation
- Fully-labeled Source: sometimes it is hard even to get labels in the source domain, e.g. medical imaging and pixel-level annotations
- Unlabeled Target

Few-shot Unsupervised Domain Adaptation
- Source with few-shot labels
- Unlabeled Target

We propose a novel Prototypical Cross-domain Self-supervised learning framework (PCS) for few-shot unsupervised Domain Adaptation, setting a new State of the Art for FUDA.

Summary

We propose a novel Prototypical Cross-domain Self-supervised learning framework (PCS) for few-shot unsupervised Domain Adaptation, setting a new State of the Art for FUDA.

Project Link